

High-Speed Rail - Chicago to St. Louis  
Alton Regional Multimodal Transportation Center Project

May 2012

Draft Report:  
Alternatives Screening

Version 1.0



## **1.0 Introduction**

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This document outlines the alternatives screening process used to identify the most suitable location for a passenger rail station in the Alton area. Section 2 outlines the guidelines and standards developed by the Federal Railroad Administration (FRA), Amtrak, and the Illinois Department of Transportation (IDOT) related to station site selection. Section 3 identifies each of the candidate sites to be screened, and finally, Section 4 evaluates each of the sites in the Alton area and recommends which sites should move forward for further evaluation.

## 2.0 Station Location Guidelines and Standards

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The Federal Railroad Administration (FRA) and Amtrak have provided passenger rail station siting guidelines through published reports and conversations throughout the Chicago to St. Louis High-Speed Rail Project. Guidance from the FRA for station location and operational guidelines is published in the technical working paper entitled *Railroad Corridor Transportation Plans – A Guidance Manual*, which was developed to provide guidance to proponents of new or improved high-speed intercity rail services or systems, like the Chicago to St. Louis High-Speed Rail corridor. For the purposes of this evaluation, these guidelines will be summarized into four main categories: Location within the Community, Accessibility and Parking, Site Assessment, and Railroad Characteristics.

### 2.1 Location within the Community

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Building on experience since the passage of the *High-Speed Ground Transportation Act of 1965*, as well as successful examples abroad, the FRA has developed the following general guidelines for locating corridor rail passenger stations:

1. Each city should have a station located in or near the central business district (CBD). This is mandatory for larger Metropolitan Statistical Areas (MSAs), with metropolitan populations of 150,000 or more, since to do otherwise would undermine the inherent advantages of rail passenger systems. Central locations are highly desirable, if at all possible, for smaller cities as well. This center city station should have direct access to local transit systems (bus, rail, taxi, etc.), as well as appropriate amounts of parking for private cars.
2. One or more suburban stations need to be provided in order to accommodate potential riders living outside the city centers. Classic successful examples of suburban or beltway stations are Route 128 outside Boston, MA and New Carrollton, MD outside Washington, DC. These “beltway”-type stations center to automobile-oriented riders and thus need to have many hundreds, if not several thousand, parking spaces to fulfill their role in corridor transportation.
3. Every effort should be made to have each corridor station serve as a regional intermodal passenger terminal for all forms of regional and local transportation systems.

Based upon the FRA guidelines for the Location within the Community, the following criteria have been developed for the evaluation of potential station sites:

- **Surrounding Land Use** – Site is located relative to employment and retail centers.
- **Access to Support Services** – Site is located adjacent to or within walking distance of support services such as hotels, shopping, and restaurants.

- **Regeneration of Urban Center** – Site enhances existing mixed-use development (shopping, businesses, restaurants, residential, etc.) or will have the potential to support future mixed-use redevelopment of the area surrounding the site.
- **Intermodal Access** – Site is located near bus, taxi, or light rail transit.
- **Site Visibility** – Site is readily visible from the adjacent regional highway or urban street. A highly visible station facility will help to attract ridership and will assist patrons in locating the station.
- **Site Access to Roadways** – Site is easily accessible from arterial roadways to accommodate riders living outside the city centers.
- **Multimodal Station Potential** – Site has the potential to serve as a regional intermodal passenger terminal for all forms of regional and local transportation systems.

## 2.2 Accessibility and Parking

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Passenger stations are critically important in attracting riders to intercity and commuter trains. Accessibility to a wide range of users is a key in transit station design. Accessibility is defined by the ease of use or approach to a particular space or area. Accessibility and parking at the station are factors that are directly tied to the ridership of the station – too few parking spaces for passenger vehicles or a station that is located in a residential neighborhood, far from arterial streets will not have as large of a ridership as a station that is located near major roadways and is sufficiently signed as to direct motorists to the station. Other modes of transportation, including pedestrians and bicycles, should also be incorporated into the site and station design. Based upon these concepts, the following criteria have been developed to evaluate the potential station sites in regards to Accessibility and Parking:

- **Infrastructure Improvements** – Amount and scope of required improvements in the external roadway system (including intersections) near the proposed station.
- **Site Entrance/Exit** – Site will accommodate separate inbound and outbound traffic entrances in accordance with the access policies of the adjacent roadway.
- **Internal Site Circulation** – Site size is sufficient to allow automobile traffic and transit vehicle traffic to be separated and to provide facilities for both transit vehicles and automobiles to pick-up and drop-off passengers.
- **Rental Cars** – Rental car services are located on-site, adjacent to the site, or within the city (with pick-up and drop-off service).
- **Bicycle Access** – Site has access to bicycle facilities, has adequate room to provide bicycle racks, and is located in a bicycling friendly environment.
- **Pedestrian Access** – Site has access to pedestrian facilities and is located in a pedestrian friendly environment.

## 2.3 Site Assessment

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The physical and geometric characteristics of the parcel(s) of land being evaluated for the station site comprise the criteria for site assessment. The location and access to the parcel may

be ideal for a station site. However, if the site has adverse grades or is an awkwardly shaped parcel, development of the site into a station and supporting facilities may be cost-prohibitive or result in a poorly designed station site. Following is a list of the criteria used to evaluate the potential station locations for Site Assessment:

- **Site Topography** – Site topography lends itself to grading and development of the site to accommodate the station, parking facilities, pedestrian and bicycle facilities, and support services in relationship to the adjacent roadways and to the track elevation.
- **Site Size at Opening** – Site is large enough to accommodate the space requirements for station facilities and parking.
- **Environmental Issues** – Site development will not adversely impact natural resources, endangered species, parks and open space, agricultural land, and cultural resources, as well as noise impacts in urban areas.
- **Site Configuration** – Site allows for a logical station layout providing passenger platform access to single-track passenger rail service while anticipating possible future implementation of two-track service.
- **Existing Utilities** – Development of the site will require minimal extensions or upgrades of utilities (such as water, sanitary sewer, gas, electric, telephone, fiber optic/data, etc.) to service the station and will have sufficient capacity for station demands.
- **Future Expansion Potential** – Site is large enough to accommodate expansion of station facilities and parking as ridership grows.
- **Property Ownership & Willingness to Sell** – Site is located on a single parcel or contiguous parcels owned by the same property owner. Property owned by a governmental agency or a property owner that is willing to negotiate to sell.

## **2.4 Railroad Characteristics**

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In addition to the location and accessibility of the site as well as the physical characteristics of the site for development into a station, the railroad track geometrics adjacent to the site and the railroad track configuration within the proximity of the site should also be assessed. Highway crossings and existing bridges or tunnels near the station site may limit or prohibit the development of a site. Following is a list of the criteria used to evaluate the Railroad Geometrics:

- **Existing Rail Alignment** – Site is located on a straight section of track to allow for construction of straight passenger platforms at least 500 feet in length.
- **Track Grades** – Existing track grades are relatively flat and will allow for development of the station and platform in accordance with ADA policies.
- **Station Track Configuration** – Station track configuration will provide for the through movement of trains along the corridor without having to reverse the train's direction at any time.
- **Highway Crossing Locations** – At-grade highway crossing locations are not located within the proximity of the station site.

- **Existing Bridges, Tunnels, Etc.** – Existing bridges, tunnels, etc. are not located within the proximity of the station site.

## **3.0 Station Alternative Identification**

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This section describes the assumptions made given available information, such as the necessary capacity of the station (ridership) and platform length (proposed initial and ultimate train lengths) as described in the Purpose & Need. Additionally, each location to be evaluated in Section 4.0 is identified and described.

### **3.1 Assumptions**

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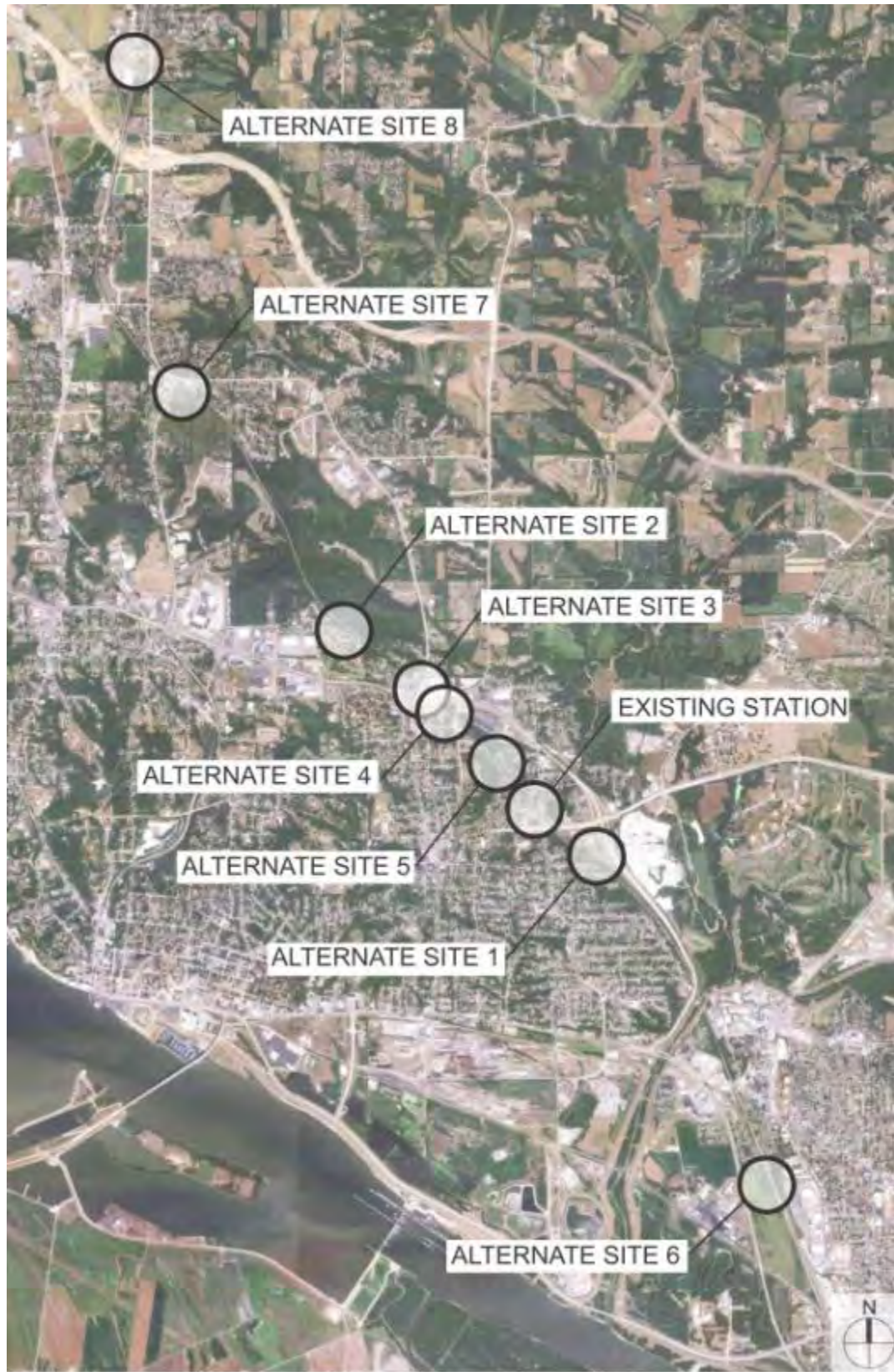
As described in the Purpose & Need, in 2010, a total of 57,588 passengers used the Alton Amtrak Station. The majority of these passengers (55 percent) travelled to or from Chicago. The numbers of passengers using Alton Station are expected to grow as high-speed service begins operating on this line. By 2030, there are expected to be 119,777 passengers using Alton Station every year, which is more than double the number using the facility today.

The new Alton Station site must provide a straight section of track to allow for construction of straight passenger platforms at least five hundred feet in length. Straight platforms are imperative to provide clear sightlines for railway personnel when passengers are boarding and alighting trains. The site should also be large enough to meet the anticipated space requirements for station facilities and parking as detailed in the Station Programming Study for Alton. Additionally, room for future expansion of station facilities and parking should be considered as ridership grows in the coming decades.

### **3.2 Locations to be Evaluated**

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A total of nine (9) station sites including the existing Alton Amtrak Station (No-Build Alternative) have been identified for evaluation as a potential Alton station site. All sites evaluated meet the Purpose & Need of the project. The locations of these sites are illustrated in Figure 3.2.1 and described below.



Aerial Imagery - Google 2012 DigitalGlobe, GeoEye, U.S. Geological Survey, USDA Farm Service Agency

Figure 3.2.1 Potential Sites for the Alton Station



### 3.2.1 Existing Station Site (No-Build Alternative)

The existing Amtrak station site is located in the northeast quadrant of the intersection between IL 140 and Kendall Avenue. Figure 3.2.2 shows the location of the existing Amtrak station and the surrounding roadways. The existing station site was evaluated against the criteria since it is the no-build alternative and must be evaluated.



Figure 3.2.2 – Existing Station Site – Location Map

### 3.2.2 Site 1

Site 1 is located approximately 0.3 mile southeast of the existing Alton Amtrak station. The site is approximately 5.74 acres and is located approximately 0.25 mile south of College Avenue and is adjacent to the Union Pacific Railroad and IL 3 (Homer Adams Parkway). Figure 3.2.3 shows Site 1. Site 1 was selected as a potential site due to its location and the availability of land for development. The City of Alton and Madison County Transit (MCT) have previously expressed their interest in developing this parcel into an intermodal transportation facility, anchored by high-speed passenger rail.



Figure 3.2.3 – Site 1 – Location Map

### 3.2.3 Site 2

Site 2 is located approximately 1.6 miles northwest of the existing Alton Amtrak station, as shown in Figure 3.2.4. The site is approximately 59 acres and is located adjacent to IL3/111 (Homer Adams Parkway) and is approximately 1.9 miles northwest of the intersection of IL 3/111 (Homer Adams Parkway) and IL 140 (College Avenue). The site is currently owned by the City of Alton and is home to the Robert P. Wadlow Golf Course, which is open to the public. The site was selected for evaluation due to its location and access to roadways as well as the site geometrics and ability to be developed into an intermodal transportation facility and accommodate future expansion of the facilities.



Figure 3.2.4 – Site 2 – Location Map

### 3.2.4 Site 3

Site 3 is located north of IL 3/111 (Homer Adams Parkway) and east of Washington Avenue. The site is approximately one mile northwest of the existing Amtrak station. Figure 3.2.5 shows the location map of the site. This site was chosen for evaluation based upon the track alignment adjacent to the site as well as its location near existing retail development.



Figure 3.2.5 – Site 3 – Location Map

### 3.2.5 Site 4

Site 4 is located south of IL 3/111 (Homer Adams Parkway), east of Washington Avenue and west of Seminary Street. The station site is approximately one mile northwest of the existing Amtrak station site. The location map of this site is included in Figure 3.2.6. Site 4 was selected for analysis based upon its visibility and access to IL 3/111 and the track alignment adjacent to the site.



Figure 3.2.6 – Site 4 – Location Map

### 3.2.6 Site 5

Site 5 is located approximately 0.4 mile northwest of the existing Amtrak station and approximately 0.4 mile northeast of the intersection between IL 140 and Seminary Street. This site was chosen for evaluation based upon the large quantity of undeveloped land that could accommodate the station, its facilities, and parking for the station. Figure 3.2.7 includes the location map for Site 5.



Figure 3.2.7 – Site 5 – Location Map

### 3.2.7 Site 6

Site 6 is located outside the limits of the City of Alton but is located within the limits of East Alton. The site is located on the east side of IL 3, approximately 0.7 mile southeast of the intersection between IL 3 and West St. Louis Avenue. Figure 3.2.8 includes the location map for Site 6. This location was chosen as a station site alternative based upon the large amount of undeveloped land for the station and parking facilities as well as the track alignment adjacent to the site.



Figure 3.2.8 – Site 6 – Location Map

### 3.2.8 Site 7

Site 7 is located in Godfrey, approximately 0.1 mile southwest of the intersection between N. Humbert Road and N. Alby Street. Figure 3.2.9 includes the location map for Site 7. This site was selected for analysis based upon the site topography and the potential to develop a multimodal station at this site.



Figure 3.2.9 – Site 7 – Location Map



### 3.2.9 Site 8

Site 8 is also located in Godfrey, less than 0.1 mile south of the intersection between Bethany Lane and IL 111/267 (Montclair Avenue). This location was chosen for evaluation based upon the amount of vacant land available for development as a station site and its accessibility and visibility to IL 111/267 (Montclair Avenue). Figure 3.2.10 shows the location of Site 8.



Figure 3.2.10 – Site 8 – Location Map

## **4.0 Station Alternative Evaluation**

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### **4.1 Methodology**

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As each station location meets the Purpose & Need of the project, the criteria developed from Amtrak and FRA guidance documents and detailed in Section 2.0 were applied to each potential Alton Station location described in Section 3.0. Each site was given a rating for each criterion or category. The ratings were the result of both qualitative and quantitative analysis. In some instances, the results generated by one alternative were compared with the results from another. This comparative analysis yielded a relational rating among alternatives for one or more evaluation factors.

The three symbols used and the point values for each in the rating process included:

- “+” Performance better than other alternatives (+1 points)
- “o” Performance same as other alternatives (0 points)
- “-” Performance worse than other alternatives (-1 points)

In the end, the summation of the ratings for each alternative provided the output used to identify which alternative(s) should be carried forward and which alternative should be eliminated from further consideration.

### **4.2 Evaluation**

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#### **4.2.1 Location within the Community**

The locations for possible development into a station were first evaluated with the criteria outline in Section 2.1 – Location within the Community. Table 4.2.1 shows the ratings of the Location within the Community for each alternative.

Table 4.2.1 Location within the Community									
Criteria	Site								
	Ex. Site	1	2	3	4	5	6	7	8
Surrounding Land Use	-	+	o	+	+	-	-	-	-
Access to Support Services	-	+	+	+	+	-	-	-	-
Regeneration of Urban Center	-	o	+	o	o	-	-	-	-
Intermodal Access	o	+	+	+	+	-	+	o	-
Site Visibility	+	+	o	+	+	-	+	-	+
Site Access to Roadways	o	o	o	+	o	-	+	o	+
Multimodal Station Potential	-	o	o	o	o	o	+	+	+
<b>Location within the Community Summation</b>	<b>-3</b>	<b>+4</b>	<b>+3</b>	<b>+5</b>	<b>+4</b>	<b>-6</b>	<b>+1</b>	<b>-3</b>	<b>-1</b>

Key: + Better than other alternatives; o Same as other alternatives; - Worse than other alternatives

#### 4.2.1.1 Surrounding Land Use

The existing station site is located in a primarily single-family residential neighborhood. Site 1 is located immediately south of the Alton Holiday Inn and the Alton Comfort Inn, several small office buildings, and a credit union. An existing residential neighborhood is located west of the site, west of the UP tracks. Site 2 is currently being utilized as a municipal golf course which is adjacent to a commercial/retail center, on the north side of IL 3/111. Small single-family residential areas are located adjacent to the site on the southeast and northwest. Across the tracks, the land is undeveloped and heavily wooded. Sites 3 and 4 are located in an existing commercial/retail area. Site 5 is bounded primarily by single-family residential developments as well as the Mississippi Valley Christian School. Sites 6, 7, and 8 are located in areas with residential properties as well as undeveloped commercial properties. Sites 1, 3, and 4 are the sites with land uses surrounding the potential station that best meet the description of the Surrounding Land Use criteria.

#### 4.2.1.2 Access to Support Services

Sites 2, 3, and 4 are located adjacent to or within a 0.4 mile walking distance to restaurants and retail services and shopping. Site 2 is also located approximately 1 mile from the Alton Square Mall, which contains over 40 stores for shopping and dining. Site 1 is located adjacent to hotels, restaurants, and banking facilities. The existing station site and Sites 5, 6, 7, and 8, are not located within the proximity of support services such as restaurants, hotels, or retail services.

#### **4.2.1.3     *Regeneration of Urban Center***

The existing station site and Sites 5, 6, 7, and 8 are located away from existing retail, businesses, restaurants, and residential areas that are found in mixed-use development. Development of these sites as a station may spur small developments for support services for the station, such as restaurants or coffee shops, but due to well-established single-family residential areas and industrial/commercial developments, large-scale transit-oriented development (TOD) areas are very unlikely. Sites 1, 3, and 4 are located within 0.5 mile of existing retail, businesses, restaurants, and residential areas. Development of one of these sites into a high-speed rail passenger station would enhance these existing developments and would likely continue development and redevelopment of these areas into a TOD. Site 2 is located within an area which largely consists of retail stores, businesses, restaurants, and hotels. Due to the size of the site (approximately 59 acres) and the availability of land within 0.5 mile of the site that could be developed or redeveloped to enhance the support services needed for the station and its passengers, the potential for incorporating lofts and apartments into the area is quite likely as well.

#### **4.2.1.4     *Intermodal Access***

Sites 5 and 8 are not located along existing MCT bus routes and are not connected to MetroLink light-rail transit in East St. Louis. These sites are only serviced by private taxi service. The existing station site and Site 7 are served by private taxi service as well as being located along an existing MCT bus route. These stations are both located along local service bus routes, the Brown Shuttle and the State & Elm Shuttle, respectively. These bus routes provide bus service within the greater Alton area and would offer connecting service to the Riverbend Express, which connects to MetroLink light-rail service at the 5<sup>th</sup> & Missouri Station in East St. Louis. Sites 1, 2, 3, 4, and 6 are served by private taxi service as well as being located along MCT bus routes. These sites are served by local bus service as well as by Riverbend Express, which connects directly to the MetroLink station in East St. Louis. Site 1 is not located directly on the Riverbend Express route but is located less than 0.25 mile from that route and an additional stop at the station could easily be incorporated into the bus route to enhance to intermodal aspect of the station.

#### **4.2.1.5     *Site Visibility***

Sites 5 and 7 are not located adjacent to arterial highways. They are located along local collector streets. Site 2 is located adjacent to an arterial highway IL 3/111 but due to the size of the site and the location of the railroad tracks (near the rear of the property), station visibility from the adjacent roadway would be limited but may be able to be achieved with good site design. The existing station site and Sites 1, 3, 4, 6, and 8 are all located adjacent to arterial highways and due to the property size and the location of the tracks, site visibility from the adjacent roadway would easily be achieved.

#### **4.2.1.6     *Site Access to Roadways***

Access to Site 5 is from Seminary Street, a two-lane roadway which is a two-lane urban collector street. Access to the existing station site and Sites 1, 2, 4, and 7 would be provided from a local

road that is less than 0.5 mile from a principle arterial road, a state route. Direct access from a principle arterial road to the station would be available for Sites 3, 6, and 8.

#### 4.2.1.7 Multimodal Station Potential

The City of Alton and MCT envision the Alton station to be a modern, intermodal station that connects various modes of transportation including pedestrians, bicycles, automobiles, taxis, buses, and high-speed rail. The existing station site does not have enough land available to accommodate the parking demands for long-term and short-term parking, passenger pick-up/drop-off areas, and MCT buses and it does not have access to pedestrian or bicycle facilities. Sites 1, 2, 3, 4, and 5 have adequate land that could accommodate the high-speed rail passenger station and parking, both short-term and long-term, MCT buses, and passenger drop-off/pick-up but these sites do not have access to bicycle or pedestrian facilities. Sites 6, 7, and 8 have adequate land that could be designed to accommodate the passenger station and parking, MCT buses, and passenger drop-off/pick-up and the existing arterial roadways adjacent to the site have shoulders that could be adequate for pedestrians and bicycles.

### 4.2.2 Accessibility and Parking

The locations for possible development into a station were evaluated with the criteria outlined in Section 2.2 – Accessibility and Parking. Table 4.2.2 shows the ratings of the Accessibility and Parking for each alternative.

Table 4.2.2 Accessibility and Parking									
Criteria	Site								
	Ex. Site	1	2	3	4	5	6	7	8
Infrastructure Improvements	o	+	+	o	-	-	o	-	-
Site Entrance/Exit	o	o	o	-	o	o	o	o	o
Internal Site Circulation	-	o	+	o	+	+	+	+	+
Rental Cars	-	-	o	o	o	o	-	-	-
Bicycle Access	-	-	o	o	o	-	o	o	o
Pedestrian Access	o	o	-	-	-	+	-	-	-
<b>Accessibility and Parking Summation</b>	<b>-3</b>	<b>-1</b>	<b>+1</b>	<b>-2</b>	<b>-1</b>	<b>o</b>	<b>-1</b>	<b>-2</b>	<b>-2</b>

Key: + Better than other alternatives; o Same as other alternatives; - Worse than other alternatives

#### 4.2.2.1 Infrastructure Improvements

It is likely that if a station site is to have access from a primary arterial roadway via a local street and that intersection does not have auxiliary turn lanes and a traffic signal installed at the intersection, these improvements will need to be installed to mitigate the traffic impacts of the traffic generated by the high-speed rail passenger station.

Sites 4, 5, 7, and 8 would need to have new entrances from the mainline roadway and the mainline roadway would need to have a traffic signal and auxiliary turn lanes installed. The existing station site and Sites 3 and 6 would be able to be developed with an entrance to the site at a location along the main roadway that already has a signalized intersection and the new entrance would be the fourth approach to that intersection or the main roadway has a bidirectional turn lane that could be re-striped to provide an exclusive left-turn lane into the new entrance. Site 2 has access to a mainline roadway at a signalized intersection, but an additional access roadway would need to be constructed to reach the station within the site. Site 1 has access to the mainline roadway at an intersection that already has auxiliary turn lanes and is signalized. No significant infrastructure improvements would be needed for site 1.

#### **4.2.2.2 Site Entrance/Exit**

All of the sites, except for Site 3, would be able to accommodate separate, full-access entrances and exits from the site. However, Site 3 may only be able to obtain one full-access entrance from Washington Avenue. A right-in/right-out (RIRO) exit may be able to be obtained along IL 3 due to the existing turn lanes and the raised concrete median along IL 3.

#### **4.2.2.3 Internal Site Circulation**

The existing station site is already experiencing operational problems with passenger vehicles and MCT buses. This site is not able to be expanded to provide separation of passenger vehicles, transit vehicles, and passenger pick-up/drop-off vehicles. Due to the physical geometry of the properties and the access from the adjacent roadways, Sites 1 and 3 may be able to separate buses from passenger vehicles (that are going to park) but these sites may not be able to separate buses from passenger vehicles that are picking-up/dropping-off passengers at the stations. Sites 2, 4, 5, 6, 7, and 8 have adequate size and access to adjacent roadways to be able to provide full separation of passenger vehicles that are going to park, transit vehicles, and passenger vehicles picking-up/dropping-off passengers at the station.

#### **4.2.2.4 Rental Cars**

Rental car service is available in Alton and at least one service has pick-up/drop-off service that could service any of the station sites. None of the potential station sites have rental car services located on site. Sites 2, 3, 4, and 5 have rental car service located within 0.5 mile of the site. The existing station site and Sites 1, 6, 7, and 8 are served by rental car companies with pick-up/drop-off service but are located more than 0.5 mile from these businesses.

#### **4.2.2.5 Bicycle Access**

The existing station site and Sites 1 and 5 are not located within the vicinity of an existing MCT Trail or roadways with shoulders to accommodate bicycles. Sites 2, 3, and 4 are located within 1 mile of a roadway with shoulders that could possibly accommodate bicycle traffic to the station site. However, some construction of bicycle accommodations from these roadways to the station site would need to be built to complete the connection. Sites 6, 7, and 8 are located adjacent to roadways with existing shoulders that could accommodate bicycle traffic to the site. However, these roadways have posted speed limits of 40 mph or greater, which results in a high speed

differential between vehicles and bicyclists. A high speed differential creates an uncomfortable feeling for most bicyclists as well as creates safety issues for the severity of crashes between vehicles and bicycles. Site 6 is the only site located within 0.5 mile of an existing MCT trail.

#### 4.2.2.6 Pedestrian Access

Sidewalks or multi-use paths are not located within the vicinity of Sites 2, 3, 4, 6, 7, and 8. The existing station site and Site 1 do not have sidewalks or multi-use shared paths along the street adjacent to the site but there are sidewalks along the arterial roadway and sidewalk extensions could be constructed to link the station site to the existing sidewalk network. Site 5 is located adjacent to Seminary Street which has sidewalks installed along the roadway within the vicinity of the site.

### 4.2.3 Site Assessment

The locations for possible development into a station were evaluated with the criteria outlined in Section 2.3 – Site Assessment. Table 4.2.3 shows the ratings of the Site Assessment for each alternative.

Table 4.2.3 - Site Assessment									
Criteria	Site								
	Ex. Site	1	2	3	4	5	6	7	8
Site Topography	-	o	o	o	o	-	+	+	+
Site Size at Opening	-	o	+	-	o	+	+	o	o
Environmental Issues	-	+	-	-	-	-	-	o	o
Site Configuration	-	+	+	-	-	+	+	-	-
Existing Utilities	+	+	o	+	+	-	-	-	o
Future Expansion Potential	-	o	+	-	-	+	+	o	-
Property Ownership & Willingness to Sell	+	+	+	o	o	o	o	o	o
<b>Site Assessment Summation</b>	<b>-3</b>	<b>+4</b>	<b>+3</b>	<b>-3</b>	<b>-2</b>	<b>0</b>	<b>+2</b>	<b>-1</b>	<b>-1</b>

Key: + Better than other alternatives; o Same as other alternatives; - Worse than other alternatives

#### 4.2.3.1 Site Topography

The existing station site and Site 5 are located on properties that are either heavily wooded or have terrain with severe grades. Sites 1, 2, 3, and 4 are located on properties that have rolling terrain, have some wooded areas, or have existing buildings that would need to be demolished in order to develop the site into a station. Sites 6, 7, and 8 are located on properties that have relatively flat terrain, no existing buildings to be demolished, and very little trees to be removed for site development.

#### **4.2.3.2 Site Size at Opening**

The existing station site and Site 3 do not have adequate space for the station facilities and parking at the opening of the high-speed rail passenger station. Sites 1, 4, 7, and 8 would have sufficient land available to be developed for the passenger station, station facilities, and parking to meet the passenger demands when the station opens. Sites 2, 5, and 6 have more than enough land available for the station, its facilities, and parking demands when the station opens.

#### **4.2.3.3 Environmental Issues**

Full environmental assessments for the sites selected for evaluation have not been prepared. In order to evaluate the potential environmental impacts on the various sites, a preliminary search of known cemeteries, churches, mines, parks, schools, LUST sites, SRP sites, wells, wetlands, and flood zones as well as areas that have the potential for archeological resources was prepared. The existing station site and Sites 2, 3, 4, 5, and 6 have potential for adverse impacts to archeological resources if the site were to be developed into a high-speed rail passenger station and supporting facilities. Site 2 also impacts a publicly-owned golf course and the site size would not allow the golf course to be redesigned and still function. Sites 1, 7 and 8 show few environmental impacts based on the preliminary screen. A complete review of environmental impacts will be prepared for the Environmental Assessment.

#### **4.2.3.4 Site Configuration**

The existing station site and Sites 3, 4, 7, and 8 are situated on properties that are oddly-shaped to provide good site design for station and parking facilities layout as well as access to the tracks for passengers. Sites 1, 2, 5, and 6 are situated on properties that would provide logical site layout providing passenger platform access to single-track passenger rail service while anticipating possible future implementation of two-track service.

#### **4.2.3.5 Existing Utilities**

Sites 5, 6, and 7 will likely require the largest number and length of extensions of existing utilities to service the site. This is mostly due to the surrounding land use and the location of the future station in relationship to the existing utilities. Sites 2 and 8 have some utilities (like water, electric, and telephone) located within 1,000 feet of the station and will require extension to service the site. The existing station site and Sites 1, 3, and 4 are located near commercially developed areas and existing utilities (such as water, sanitary sewer, electric, telephone, gas, and fiber optic/data) are located within 1,000 feet of the station and will require minimal extensions to service the site.

#### **4.2.3.6 Future Expansion Potential**

The existing station site and Sites 3, 4, and 8 are less than 4 acres in size and will likely not be able to accommodate future expansions of the passenger station and parking facilities to accommodate passengers as ridership increases. Sites 1 and 7 are between 5 and 6 acres each and could possibly accommodate future, limited expansions of the station and the parking facilities. In order to optimize development of these properties, it would be good to develop a phased site plan which would include the initial station and parking facilities as well as future



expansion of the station and parking. Sites 2, 5, and 6 are all in excess of 10 acres and would provide more than enough property to expand that passenger station, support facilities, and parking facilities as ridership at the station increases.

**4.2.3.7 Property Ownership & Willingness to Sell**

Sites 3, 4, 5, 6, 7, and 8 are owned by private individuals or private companies. These property owners have not been approached to assess their willingness or interest in selling their property for development of a high-speed rail passenger station. It is not known if these properties could be acquired for development of the station sites. The existing station site and Sites 1 and 2 could be developed into a high-speed rail passenger station with minimal complications from the existing property owners. Site 1 is owned privately but the owner has previously expressed willingness to sell the property to the City for development of a station. The existing station site is owned by the UP RR. Site 2 is owned entirely by the City of Alton. No complications due to property acquisition would be anticipated in the development of either of these sites.

**4.2.4 Railroad Characteristics**

The locations for possible development into a station were evaluated with the criteria outlined in Section 2.4 – Railroad Characteristics. Table 4.2.4 shows the ratings of the Railroad Characteristics for each alternative.

Table 4.2.4 - Railroad Characteristics									
Criteria	Site								
	Ex. Site	1	2	3	4	5	6	7	8
Existing Rail Alignment	-	+	+	-	-	+	+	0	+
Track Grades	0	0	0	0	0	0	0	0	0
Station Track Configuration	0	0	0	0	0	0	-	0	0
Highway Crossing Locations	+	+	0	-	-	+	+	-	-
Existing Bridges, Tunnels, Etc.	-	0	+	-	-	0	+	+	+
<b>Railroad Characteristics Summation</b>	<b>-1</b>	<b>+2</b>	<b>+2</b>	<b>-3</b>	<b>-3</b>	<b>+2</b>	<b>+2</b>	<b>0</b>	<b>+1</b>

Key: + Better than other alternatives; 0 Same as other alternatives; - Worse than other alternatives

**4.2.4.1 Existing Rail Alignment**

The existing station site and Sites 3 and 4 are located along a horizontal curve of the tracks which is not ideal for development of a station and platform and would take extra design considerations to mitigate the curvature of the tracks at the station site. Site 7 fronts a section of track that is located along a horizontal curve and a section of track that is located along the

tangent to the curve. The site appears to have approximately 550 feet of track that is located along the tangent. Careful consideration would need to be given to during the design of the station and passenger platform for development of this site. Sites 1, 2, 5, 6, and 8 are all located along tangent sections of track which have at least 1,000 feet of straight track available for development of the station and passenger platform.

#### **4.2.4.2 Track Grades**

All of the potential sites for the high-speed rail passenger station are located along relatively flat track grades. No sites are too steep for development of a station and platform.

#### **4.2.4.3 Station Track Configuration**

All of the potential sites for the high-speed rail passenger station will provide for the through movement of trains along the corridor without having to reverse the train's direction at any time. However, Site 6 is located along a section of track with two mainline tracks within the UP RR ROW. Passenger rail service primarily uses the east track, which is located on the far side of the ROW corridor away from the station site. That presents potential problems with station planning in order to provide a platform on the east side of the track accessed from a stationhouse and parking located on the west side of the tracks. The west track peels away from the east track north of this site and continues west to service industrial properties along the Alton Riverfront.

#### **4.2.4.4 Highway Crossing Locations**

Sites 3, 4, 7, and 8 have existing at-grade highway crossings less than 0.25 miles from the station site. Site 2 has an existing at-grade highway crossing approximately 0.5 mile from the station site. The existing station site and Sites 1, 5, and 6 have no at-grade highway crossings within 0.5 mile of the site. At-grade highway crossings located within the proximity of the station can be a safety issue for both the trains and the vehicles using the crossing.

#### **4.2.4.5 Existing Bridges, Tunnels, Etc.**

The existing station site and Sites 3 and 4 have a bridge located less than 0.25 mile from the station site. Sites 1 and 5 have a bridge located between 0.25 and 0.5 mile from the station site. Sites 2, 6, 7, and 8 have a bridge located greater than 0.5 mile from the station sites.

### **4.2.5 Evaluation Summary**

Table 4.2.5 includes the summary of the evaluation of the station locations for the four main categories: Location within the Community; Accessibility and Parking; Site Assessment; and Railroad Characteristics.

Table 4.2.5 - Summary of Screening Criteria Rankings									
Screening Criteria	Site								
	Ex. Site	1	2	3	4	5	6	7	8
Location within the Community	-3	+4	+3	+5	+4	-6	+1	-3	-1
Accessibility and Parking	-3	-1	+1	-2	-1	o	-1	-2	-2
Site Assessment	-3	+4	+3	-3	-2	o	+2	-1	-1
Railroad Characteristics	-1	+2	+2	-3	-3	+2	+2	o	+1
Summary Rating	-10	+9	+9	-3	-2	-4	+4	-6	-3
<b>Recommended for Further Analysis</b>	No	<b>Yes</b>	<b>Yes</b>	No	No	No	No	No	No

Key: + Better than other alternatives; o Same as other alternatives; - Worse than other alternatives

As shown in Table 4.2.5, Sites 1 and 2 ranked the highest when evaluated against the screening criteria. These two sites are recommended for further evaluation. As the existing site represents the no-build alternative, it is also carried forward for further analysis.

#### 4.2.5.1 Site 1

Site 1 ranked higher than or equal to all other sites for the Location within the Community criteria, Site Assessment screening criteria, and Railroad Characteristics criteria. Site 1 is located adjacent to established hotels, restaurants, businesses, and office buildings. Even though single-family residential is located on the west side of the tracks, no connections from the station to the residential neighborhood would be made. Development of this site would enhance the existing businesses and would spur development of additional support services for the station. This site also has excellent visibility from arterial streets and has good access from IL 140 as well. MCT has expressed its support for the selection of Site 1 as the intermodal Alton station to combine high-speed rail, buses, passenger vehicles, bicycles, and pedestrians.

Site 1 is likely to require shorter utility extensions than all other sites to serve a potential station.

Site 1 does not have any at-grade highway crossings within the proximity of the site.

#### 4.2.5.2 Site 2

Site 2 ranked higher than all other sites in Accessibility and Parking. This higher ranking is due to the better internal site circulation and the closer proximity to rental car service and bicycle access. Site 2 ranked higher than all other sites except Site 1 in the Site Assessment criteria. However, Site 2 has more land available for initial development of the station and supporting facilities and has more potential for future expansion of the station and its facilities as ridership

increases. Site 2 does rank the same or better than all other sites for Railroad Characteristics and does not have any bridges or tunnels within the proximity of the site.

#### **4.2.5.3 Existing Station Site (No-Build Alternative)**

The existing Alton Station Site fared the same or worse than the other station sites in all criteria except Railroad Characteristics. The existing station site is surrounded by mostly single-family residential developments and does not have the capacity to be expanded to serve as the intermodal transportation hub that the City of Alton and MCT desire the high-speed rail passenger station to be. This site is not able to accommodate MCT buses, pedestrians, and bicycles. Due to these conditions, the existing station site ranked low in Location within the Community, Accessibility and Parking, and Site Assessment. However, as continued use of the existing station site represents the No-Build (Baseline) Alternative, the Existing Station Site will be carried forward for further analysis.

#### **4.2.5.4 Sites Not Carried Forward for Further Evaluation**

Sites 3, 4, 5, 6, 7, and 8 scored significantly lower than Sites 1 and 2 when evaluated against the Screening Criteria.

Site 3 is situated in an area that scores very well for Location within the Community due to its surrounding land use, the available support services, and the likelihood of spurring redevelopment of vacant properties. However, these benefits are overcome by the lower scores for Accessibility and Parking, Site Assessment, and Railroad Characteristics. This triangular-shaped property is located in the northeast quadrant of IL 3 and Washington Avenue. This location, while highly visible, has extreme limitations on the number and placement of entrances from the adjacent roadways. Additionally, the existing at-grade crossing at Washington Avenue is in close proximity to the station site and poses issues for trains, vehicles, and pedestrians. This site is also small in size and would likely require additional property to be acquired to develop the initial station, its facilities, parking, and internal site circulation. The property is located on a site that has an existing commercial development. While the site would be able to accommodate good site design for station elevations and stormwater drainage and detention, demolition of the existing building and structures would be a disadvantage of this site.

Site 4 is located on the south side of IL 3, directly across from Site 3. Site 4 is very similar to Site 3 in regards to the evaluation of the screening criteria for Location within the Community. Like Site 3, Site 4 also does not rank very highly for Accessibility and Parking, Site Assessment, and Railroad Characteristics. Due to the size of the site, Site 4 could provide good internal site circulation. However, this site provides less than desirable frontage on the track ROW. The short distance between the adjacent railroad viaducts over IL 3 and Seminary Street would require the passenger platform to be constructed at an overall length of less than the 500 feet required per the station program. A platform of 500 feet in length would need to be partially constructed over one or both of the adjacent roadways. Site 4 is also located along a section of track that has an existing horizontal curve and development of a stationhouse and platform would be more difficult at this location.

Site 5 is located in a well-established, single-family residential area, approximately 0.4 mile south of the intersection of IL 3 and Seminary Street. The site is not located along a major thoroughfare, has poor site visibility, and does not have direct access to arterial roadways. Due to the size of the property, this site would have good internal site circulation, be able to accommodate the station and its facility at the opening, and have good potential for future expansions. However, due to roadway infrastructure improvements required to mitigate the traffic generated by the station, the heavily wooded site, potential environmental impacts, and the needed utility extensions to serve the site, Site 5 ranked very low when evaluated against the screening criteria.

Site 6 is located away from support services for the station, lacks pedestrian and bicycle facilities, and does not have the potential for adding mixed-used development if the site is developed into a station. The site does have good access to an arterial roadway, has good visibility from IL 3, and could provide good internal site circulation. The site does have adequate size for the station and its support facilities and has the potential for future expansion as ridership increases. One concern of the development of this site is the existing dual tracks along the site. Currently, passenger service is provided on the east side tracks and the station and platform would be located on the west side of the tracks. This arrangement would require a grade-separated pedestrian crossing and platform off the property to be constructed.

Site 7 ranked poorly in all screening criteria categories. However, Location within the Community ranked particularly low. This is due largely to the surrounding land use, being located away from an urban center, lack of support services for the station, and poor site visibility. The adjacent roadway does not accommodate pedestrians and even though there is a shoulder present for bicyclists to utilize, the posted speed limit for vehicles along North Alby Street would make most bicyclists uncomfortable to ride on the shoulder. The site configuration is triangular and there is a limited tangent section of tracks for the station and platform to be built. These limitations would hinder site design and would likely limit the future expansion potential of the site.

Site 8 scored poorly for most of the screening criteria categories. Even though the site is located along an arterial roadway, which would provide good access to the site as well as good visibility of the site, and along a tangent section of track, the site is located away from an urban center and away from support services for the station. The site size is small and may limit site design of the station and facilities and would most likely prohibit future expansion of the station and parking at this site.

## 5.0 References

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